DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009756 Address: 333 Burma Road **Date Inspected:** 06-Oct-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Xu Yumin and Li Jia **CWI Present:** Yes No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

1AAE+1AE

This QA Inspector performed Magnetic Particle (MT) inspection of weld joint OBE1-001 excavation performed by ZPMC. MT inspection was performed at three (3) separate Y locations on deck panel prior to ZPMC MT inspection. Y locations, depth and number of transverse indication are as followed:

- 1. Y location 10,850mm (off bike path side), length of excavation 160mm, depth of excavation approximately 17. 14mm, approximately 2 transverse indications present.
- 2. Y location 10,500mm (off bike path side), length of excavation 130mm, depth of excavation approximately 18. 65mm, approximately 1 transverse indication present.
- 3. Y location 10,300mm (off bike path side), length of excavation 125mm, depth of excavation approximately 16. 85mm, approximately 4 transverse indications present.

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Above noted excavation areas were performed per CWR814. A CWR will need to be submitted for engineer approval for repair work.

NDT Observation

This QA Inspector observed ZPMC Magnetic Particle (MT) Technician performing MT on various locations in the trial assembly yard. Locations are as followed:

1AAE + 1AE

- 1. Y location 8,920mm (off bike path side), length of excavation 140mm, approximately 4 transverse indications present.
- 2. Y location 6,400mm (off bike path side), length of excavation 140mm, approximately 1 transverse indication present.
- 3. Y location 5,800mm (off bike path side), length of excavation 135mm, approximately 4 transverse indications present.
- 4. Y location 5,300mm (off bike path side), length of excavation 124mm, approximately 1 transverse indication present.
- 5. Y location 9,780mm (off bike path side), length of excavation 130mm, approximately 3 transverse indications present.
- 6. Y location 2,750mm (off bike path side), length of excavation 135mm, approximately 2 transverse indications present.

This QA Inspector observed above noted transverse indications and transverse indications observed at Y locations 10,850, 10,500 and 10,300mm were removed by hand held grinder. Noted excavation areas were MT inspected and accepted by ZPMC QC department.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

- 1. UT reject excavation in OBE1-001 deck plate weld joint in progress from inside of segment 1E.
- 2. UT reject excavations in OBW1-001 deck plate weld joint located on counter weight side of segment.
- 3. UT reject excavations on 1AW to 1BW side plate weld joint located on counter weight side of segment. QA Inspector noted, per ZPMC UT report, transverse indication reported between approximately 60~ 9,230mm from bottom plate.

Note:

Due to China National Holiday, work was limited in the OBG Trail Assembly Yard on today's work shift.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer